

ABSTRACT OF THE DISCLOSURE

Methods and systems for determining position relative to an interference pattern generator including capturing an image of an interference pattern from a known fringe pattern generator with a viewer. The phase of the interference pattern is then determined with a processor and the phase information is used to find the orientation of the viewer relative to the fringe pattern generator. The distance to the fringe pattern generator is also found based on the interference pattern and position data relative to the fringe pattern generator is derived.

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